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G4N NHSX N6N7
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(56) Documents Cited

GB 2343040 A **DE 003538449 A**

(58) Field of Search

UK CL (Edition S) **G4N NAA NCF NET NHST NHSX**
NHX
INT CL⁷ **G08B 21/00**
Online: **EPODOC, JAPIO, WPI**

(54) Abstract Title

Beer line cleaning monitor and alarm

(57) A monitor which may be attached to an existing beer or beverage line 13 without breaking into that line, uses sensors 12 to detect the changing nature of the fluid present in the line when cleaning fluid or rinsing water is substituted for beer or beverage during the cleaning operation. A control unit 10 embodies a clock and calendar 17 which enable it to log the times and/or dates of cleaning and to activate alarms 14, 15 if the elapsed time since the last cleaning operation exceeds a preset period.

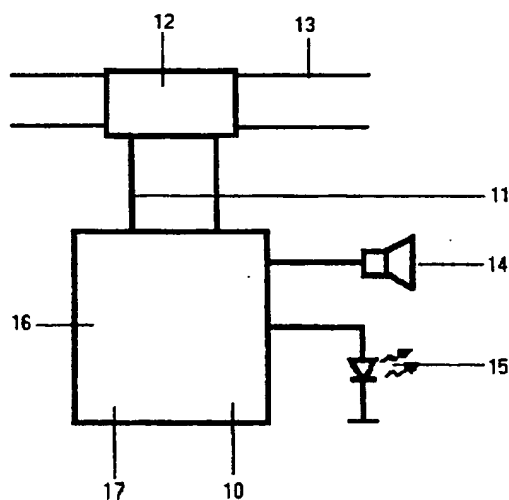


Fig 1

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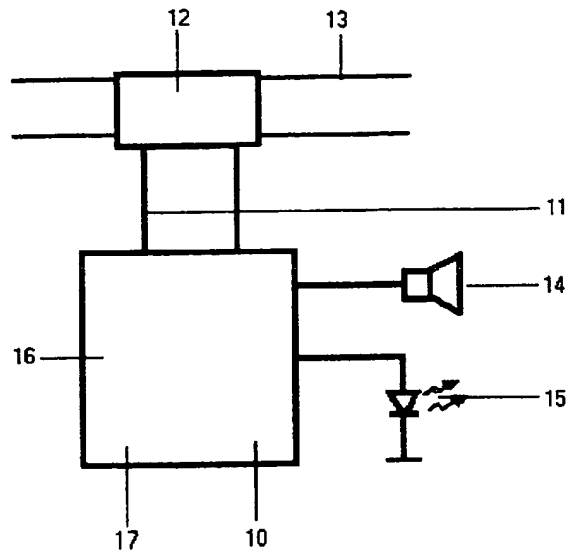


Fig 1

BEER LINE CLEANING MONITOR

The invention relates to a Beer Line Cleaning Monitor.

Fluid lines which carry beer or other potable beverages from a storage area or cellar to the point of dispense are well known to require periodic cleaning in order to avoid a build up of contaminants which may adversely affect the quality of the beer or beverage. This cleaning is normally performed by passing chemical solutions through the fluid line, followed by rinsing water. The frequency with which the cleaning operation should be performed is specified by the beer or beverage manufacturer, or by the person responsible for the conduct of the premises. Carrying out the cleaning operation on the due date is the responsibility of any nominated individual member of staff of the premises, or is sub-contracted to a specialist cleaning company.

Periodic cleaning operations are, however, commonly deferred or omitted due to time constraints or the wish to avoid wastage resulting from emptying the fluid lines. The person with overall responsibility for the premises is frequently unaware of deferred or omitted cleaning until this becomes apparent in the quality of product as presented to the consumer.

According to the present invention there is provided a monitor which may be attached to an existing beer or beverage line without breaking into that line, and which detects the changing nature of the fluid present in the line when cleaning fluid or rinsing water is substituted for beer or beverage during the cleaning operation. This monitor embodies a clock and calendar which enable it to log the times and/or dates of cleaning and to activate an alarm if the time since the last cleaning operation exceeds the period set by the person with overall responsibility.

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawing in which:-

Figure 1 shows the monitor in position on the beverage line.

Referring to the drawing the monitor comprises of a control unit 10 and sensors 12 in the form of a package reasonably secured to the beverage line 13 by, for example, a mechanical attachment (not shown).

The control unit 10 is connected to the sensors 12 by wires 11. A power source in the way of battery 16 is in the control unit 10.

Audio signal 14 is accompanied by visual signal 15.

The clock and calendar is contained within or connected to control unit 10.

Control unit 10 is programmed to interrogate clock/calendar 17 in conjunction with sensors 12 in order to measure elapsed time since the sensors 12 detected a change in the nature of the fluid within beverage line 13.

If the elapsed time since the change of fluid within the beverage line 13 and detected by sensors 12 exceeds a preset value programmed into control unit 10 then the control unit 10 activates either an audible alarm 14 or visual alarm 15

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CLAIMS

1. A monitor which may be attached to an existing beer or beverage line with out breaking into that line, and which detects the changing nature of the fluid present in the line when cleaning fluid or rinsing water is substituted for beer or beverage during the cleaning operation. This monitor embodies a clock and calendar which enable it to log the times and/or dates of cleaning and to activate an alarm if the time since the last cleaning operation exceeds the period set by the person with overall responsibility.
2. A monitor as claimed in Claim 1 wherein an internal source of electrical power is provided together with the option of accepting power from an external source.
3. A monitor as claimed in Claim 1 or Claim 2, wherein has the specified period between cleaning operations is factory set.
4. A monitor as claimed in Claim 1 or Claim 2, wherein means is provided for either audio or visual alarm indicators, or both.
5. A monitor as claimed in Claim 1 or Claim 2, wherein means is provided for information transfer to a remote data-logging facility.
6. A monitor as claimed in Claim 1 or Claim 2, wherein alarm activation is accompanied by disabling the dispense system until an over ride facility is operated.
7. A monitor as claimed in claim 1 or claim 2 wherein data from the beverage line sensors is transmitted by wireless means to the control unit.
8. A monitor substantially as described herein with reference to Figure 1-4 of the accompanying drawing.



Application No: GB 0012857.9
Claims searched: 1 at least

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Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): G4N (NAA, NCF, NET, NHST, NHSX, NHX)

Int Cl (Ed.7): G08B (21/00)

Other: Online: EPODOC, JAPIO, WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
Y	GB 2343040 A (WILKINSON) see abstract	1 at least
Y	DE 3538449 A (ING BURO HANS NERB) see EPODOC & WPI abstracts	1 at least

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.